

**Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services**

**STATEMENT OF BASIS**

**BASF Corporation  
Utilities Boilers No. 3 and No. 6  
Geismar, Ascension Parish, Louisiana  
Agency Interest Number: 2049  
Activity Number: PER20030004  
Permit 2564-V2**

**I. APPLICANT:**

**Company:**

BASF Corporation  
P.O. Box 457, Geismar, LA 70734-0457

**Facility:**

Utilities Boilers No. 3 and No. 6  
8404 River Road, Geismar, Ascension Parish, Louisiana  
Approximate UTM coordinates are 692.820 kilometers East and 3342.390  
kilometers North, Zone 15

**II. FACILITY AND CURRENT PERMIT STATUS:**

BASF operates an integrated chemical manufacturing facility on the east bank of the Mississippi River, near Geismar. The No. 3 and No. 6 Boilers previously operated under RCRA Boiler and Industrial Furnace (BIF) regulations and Part 70 Operating Permit Number 2564-V0. Currently the facility operates under Permit 2564-V1 dated November 22, 2000.

This is the Part 70 operating permit renewal/modification for the facility.

Several Part 70 permits addressing the facility have already been issued. These permits include:

<b>Permit #</b>	<b>Units or Sources</b>	<b>Date Issued</b>
2526-V2	Acetylene	6/19/2006
2028-V3	Specialty Amines (Includes S-MOIPA)	12/23/2005
2558-V1	Aniline I and II	10/18/2006
2353-V0	Diols/Intermediates	2/20/2006
2459-V3	EO/EG (EO/EG, Gasoline Additives)	3/30/2006
2094-V1	Glyoxal	7/13/2006
2334-V0	MDI I	6/5/2006

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Permit #	Units or Sources	Date Issued
2559-V2	MDI II	12/28/2001
2039-V0	NVP/PVP	4/11/2002
2427-V1	Polyols/CCU	7/7/2006
2582-V2	Surfactants	6/29/2005
2643-V0	TDI	11/4/1999
2265-V4	Utilities (includes WWTP)	8/29/2001
2564-V1	Utilities Boilers No. 3 & No. 6	11/22/2000

### III. PROPOSED PERMIT / PROJECT INFORMATION:

#### Proposed Permit

A permit application and Emission Inventory Questionnaire were submitted by BASF Corporation on February 27, 2003 requesting a Part 70 operating permit. Additional information dated March 6, 2003, January 26, 2007, and February 7, 2007 was also received.

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, on <date>, 2007; and in the *Gonzales Weekly*, Gonzales, on <date>, 2007. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on <date>. The draft permit was also submitted to US EPA Region VI on <date>. All comments will be considered prior to the final permit decision.

#### Project Description

BASF proposes to modify the Utilities Boilers No. 3 and No. 6 as follows:

1. The change of name of Boilers No. 3 and No. 6 emission points from 3-57 and 1-75 to UTL15 and UTL16, respectively.
2. The deletion of Part 70 specific conditions 5 and 7 as these conditions do not apply.
3. The deletion of "Use of Flue Gas Oxygen Monitors for Combustion Controls as these conditions are not applicable.
4. The addition of a fugitive emission, Emission Point UTL18.
5. The modification of Part 70 specific condition 6 as LAC 33:III.1101 or 1313 does not require weekly visual inspections for opacity.
6. The revision of emission limits from the facility's remaining emission point sources based on updated emission factors and/or current facility conditions.

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**Permitted Air Emissions**

The estimated emissions in tons per year for this permit renewal/modification are as follows:

**Emissions Summary (Tons Per Year)**

Pollutant	Before	After	Change
PM <sub>10</sub>	27.85	21.73	-6.12
SO <sub>2</sub>	2.51	1.49	-1.02
NO <sub>x</sub>	958.16	453.76	-504.40
CO	104.37	208.95	+104.58 <sup>§</sup>
VOC*	16.13	15.94	-0.19

<sup>§</sup>Increase in CO emissions is due to change in AP-42 emission factor from 40 to 86.

**\*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):**

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
2,2-Toluene diamine	1.81	2.18	+0.37
Formaldehyde	—	0.19	+0.19
Methanol	4.97	5.83	+0.86
n-Butyl alcohol	2.19	2.82	+0.63
n-Hexane	—	4.47	+4.47
ortho-Toluidine	—	0.03	+0.03
Sulfur trioxide	—	0.06	+0.06
Total	8.97	15.58	+6.61

The emission changes are due to AP-42 emissions factors as there are no operational or process changes in this permit.

**Prevention of Significant Deterioration Applicability**

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAP).

There is no physical change in the method of operation therefore the modifications/revisions proposed in this permit renewal/modification do not trigger

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PSD review because the emission changes are due solely to an emissions reconciliation. Prevention of Significant Deterioration (PSD) does not apply.

**Non-attainment New Source Review (NNSR)**

The Utilities Boilers No. 3 and No. 6 facility is located in a serious non-attainment area for ozone. In this permit renewal/modification the project decrease in NO<sub>x</sub> is 504.40 tons per year, netting analysis is not required. The decrease in VOC is 0.19 tons per year, netting analysis is not required. This permit was reviewed for compliance with the Louisiana Comprehensive TAP Emission Control Program, NSPS and NESHAP. PSD regulations do not apply.

**MACT requirements**

The BASF Geismar Site is a major source of toxic air pollutants (TAPs). Facility-wide emissions of 1,3-butadiene, benzene, formaldehyde, and n-Hexane are emitted in quantities above the Minimum Emission Rate (MER) and are controlled by Maximum Achievable Control Technology (MACT) in accordance with Compliance Plan No. 92067, approved November 1, 1994.

**Air Modeling Analysis**

Not Applicable.

**General Condition XVII Activities**

See permit item VIII.

**Insignificant Activities**

Not Applicable.

**IV. Permit Shields**

Not Requested

**V. Periodic Monitoring**

The Monitoring, Reporting, and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are provided in the Facility Specific Requirements Section of the proposed permit.

**VI. Applicability and Exemptions of Selected Subject Items**

A complete listing of non-applicable and exempted state and federal air quality requirements for each subject item is included in the proposed Part 70 permit, Table 2. Applicable requirements are included in the specific requirements.

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**VII. Streamlined Requirements**

Not Applicable.

**VIII. Glossary**

**Maximum Achievable Control Technology (MACT)** - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

**Nitrogen Oxides (NO<sub>x</sub>)** - Compounds whose molecules consists of nitrogen and oxygen.

**Part 70 Operating Permit-** Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

**PM<sub>10</sub>-** Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

**Potential to Emit (PTE)** - The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

**Prevention of Significant Deterioration (PSD)** – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

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Sulfur Dioxide (SO<sub>2</sub>) – An oxide of sulphur.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) - Any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.